

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image processing system for processing a ~~component~~ color ~~image~~ signal extracted from image signals, comprising:

quantizing means for quantizing said ~~component~~ color ~~image~~ signal over a plurality of quantization regions thereof such that a ~~color-difference~~ distance in a uniform color space per unit error caused by quantization of said ~~component~~ color ~~image~~ signal in each of said plurality of quantization regions is within a predetermined value.

Claim 2 (Currently Amended): The image processing system according to claim 1, wherein said quantizing means quantizes low frequency components of said ~~component~~ color ~~image~~ signal.

Claim 3 (Currently Amended): The image processing system according to claim 1, wherein said quantizing means computes said ~~color-difference~~ distance in a uniform color space per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 4 (Currently Amended): The image processing system according to claim 1, wherein said quantizing means obtains said ~~color-difference~~ distance in a uniform color space per unit error as an envelope drawn through maximal points of color difference versus ~~component~~ color ~~image~~ signal plots for all values of G as a parameter among components R, G and B.

Claim 5 (Currently Amended): An image processing system for processing a component color image signal extracted from image signals, comprising:

quantizing means for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of ~~said a~~ color difference per unit error caused by quantization of said component color image signal.

Claim 6 (Original): The image processing system according to claim 5, wherein said quantizing means computes said color difference per unit error by averaging color difference versus component color image signal plots over all values of G as a parameter among components R, G and B.

Claim 7 (Original): The image processing system according to claim 5, wherein said quantizing means obtains said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claim 8 (Original): The image processing system according to claim 5, wherein said quantizing means linearly quantizes said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claim 9 (Currently Amended): An image processing system for processing a component color image signal extracted from image signals, comprising:

quantizing means for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal, wherein

said quantizing means obtains a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claims 10-12 (Canceled).

Claim 13 (Currently Amended): An image processing system for processing a plurality of ~~component~~ color ~~image~~ signals extracted from image signals, comprising:

quantizing means for quantizing one of said plurality of ~~component~~ color ~~image~~ signals depending on other ~~component~~ color ~~image~~ signals which are not presently quantized.

Claim 14 (Original): An image processing system for processing a plurality of component color image signals extracted from image signals, comprising:

quantizing means for quantizing one of said plurality of component color image signals depending on a position of said one of said plurality of component color image signals on a plane identified by a subsection of said plane; said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 15 (Original): The image processing system according to claim 14,  
wherein said quantizing means linearly quantizes said component color image signal  
in at least one of said plurality of subsections.

Claim 16 (Currently Amended): An image processing system for processing first and  
second ~~component~~ color image signals extracted from image signals, comprising:  
quantizing means for quantizing said first ~~component~~ color image signal and a  
distance of a position from a locus of points of equal values of said first and second  
~~component~~ color image signals, said position corresponding to said first and second  
~~component~~ color image signals on a plane specified by said first and second ~~component~~ color  
image signals.

Claim 17 (Currently Amended): The image processing system according to claim 16,  
wherein said quantizing means quantizes at least one of a difference between first and  
second ~~component~~ color image signals, and either one of said first and second ~~component~~  
color image signals.

Claim 18 (Currently Amended): A method for processing a ~~component~~ color image  
signal extracted from image signals for an image processing system, comprising ~~the step of~~:  
quantizing said ~~component~~ color image signal over a plurality of quantization regions  
thereof such that a ~~color difference~~ distance in a uniform color space per unit error caused by  
quantization of said ~~component~~ color image signal in each of said plurality of quantization  
regions is within a predetermined value.

Claim 19 (Currently Amended): The method according to claim 18, further comprising ~~the step of~~:

computing said ~~color difference~~ distance in a uniform color space per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 20 (Currently Amended): The method according to claim 18, further comprising ~~the step of~~:

obtaining said ~~color difference~~ distance in a uniform color space per unit error as an envelope drawn through maximal points of color difference versus ~~component~~ color image signal plots for all values of G as a parameter among components R, G and B

Claim 21 (Currently Amended): A method for processing a component color image signal extracted from image signals for an image processing system, comprising ~~the step of~~:

quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of a color difference per unit error caused by quantization of said component color image signal.

Claim 22 (Currently Amended): The method according to claim 21, further comprising ~~the step of~~:

computing said color difference per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 23 (Currently Amended): The method according to claim 21, further comprising ~~the step of~~:

obtaining said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G as a parameter among components R, G and B

Claim 24 (Currently Amended): The method according to claim 21, further comprising ~~the step of~~:

linearly quantizing said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claim 25 (Currently Amended): A method for processing a component color image signal extracted from image signals for an image processing system, comprising ~~the step of~~:

quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal; and

obtaining a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G as a parameter among components R, G and B.

Claims 26-28 (Canceled).

Claim 29 (Currently Amended): A method for processing a plurality of ~~component~~ color ~~image~~ signals extracted from image signals for an image processing system, comprising ~~the step of:~~

quantizing one of said plurality of ~~component~~ color ~~image~~ signals depending on other ~~component~~ color ~~image~~ signals which are not presently quantized.

Claim 30 (Currently Amended): A method for processing a plurality of component color image signals extracted from image signals for an image processing system, comprising ~~the step of:~~

quantizing one of said plurality of component color image signals depending on a position thereof on a plane identified by a subsection of said plane; said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 31 (Currently Amended): The method according to claim 30, further comprising ~~the step of:~~

linearly quantizing said component color image signal in at least one of said plurality of subsections.

Claim 32 (Currently Amended): A method for processing first and second ~~component~~ color ~~image~~ signals extracted from image signals for an image processing system, comprising ~~the step of:~~

quantizing said first ~~component~~ color ~~image~~ signal and a distance of a position from a locus of points of equal values of said first and second ~~component~~ color ~~image~~ signals, said position corresponding to said first and second ~~component~~ color ~~image~~ signals on a plane specified by said first and second ~~component~~ color ~~image~~ signals.

Claim 33 (Currently Amended): The method according to claim 32, further comprising ~~the step of~~:

quantizing at least one of a difference between said first and second ~~component~~ color ~~image~~ signals, and either one of said first and second ~~component~~ color ~~image~~ signals.

Claim 34 (Currently Amended): A computer accessible storage medium storing computer instructions for processing a ~~component~~ color ~~image~~ signal extracted from image signals for an image processing system,

wherein said computer instructions perform at least the step of quantizing said ~~component~~ color ~~image~~ signal over a plurality of quantization regions thereof such that a ~~color difference~~ distance in a uniform color space per unit error caused by quantization of said ~~component~~ color ~~image~~ signal in each of said plurality of quantization regions is within a predetermined value.

Claim 35 (Currently Amended): A computer accessible storage medium storing computer instructions for processing a component color image signal extracted from image signals for an image processing system,

wherein said computer instructions perform at least the step of quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal



corresponding to a maximum of said ~~a~~ color difference per unit error caused by quantization of said component color image signal.

Claim 36 (Currently Amended): A computer accessible storage medium storing computer instructions for processing a plurality of ~~component~~ color image signals extracted from image signals for an image processing system,

wherein said computer instructions perform at least a step of quantizing one of said plurality of ~~component~~ color image signals depending on other ~~component~~ color image signals which are not presently quantized.

Claim 37 (Currently Amended): An image processing system for processing a ~~component~~ color image signal extracted from image signals, comprising:

a quantizing device for quantizing said ~~component~~ color image signal over a plurality of quantization regions thereof such that a ~~color difference~~ distance in a uniform color space per unit error caused by quantization of said ~~component~~ color image signal in each of said plurality of quantization regions is within a predetermined value.

Claim 38 (Currently Amended): The image processing system according to claim 37, wherein said quantizing device quantizes low frequency components of said ~~component~~ color image signal.

Claim 39 (Currently Amended): The image processing system according to claim 37, wherein said quantizing device computes said ~~color difference~~ distance in a uniform color space per unit error by averaging color differences over all values of G as a parameter among components R, G and B.

Claim 40 (Currently Amended): The image processing system according to claim 37, wherein said quantizing device obtains said ~~color difference~~ distance in a uniform color space per unit error as an envelope drawn through maximal points of color difference versus ~~component~~ color image signal plots for all values of G as a parameter among components R, G and B.

Claim 41 (Currently Amended): An image processing system for processing a component color image signal extracted from image signals, comprising:  
a quantizing device for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a maximum of ~~said a~~ color difference per unit error caused by quantization of said component color image signal.

Claim 42 (Original): The image processing system according to claim 41, wherein said quantizing device computes said color difference per unit error by averaging color difference versus component color image signal plots over all values of G as a parameter among components R, G and B.

Claim 43 (Original): The image processing system according to claim 41, wherein said quantizing device obtains said color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal plots for all values of G, as a parameter, among components R, G and B.

Claim 44 (Original): The image processing system according to claim 41,

wherein said quantizing device linearly quantizes said component color image signal in at least one of a plurality of quantization regions specified by a value of said component color image signal, as a threshold, corresponding to at least one of a polarity change and a maximum of said polarity change.

Claims 45 (Currently Amended): And image processing system for processing a component color image signal extracted from image signals, comprising:

a quantizing device for quantizing said component color image signal under a quantization level number different for each of a plurality of quantization regions specified by a value of said component color image signal corresponding to a polarity change of said component color image signal, wherein

said quantizing device obtains a color difference per unit error as an envelope drawn through maximal points of color difference versus component color image signal pplots for all values of G, as a parameter, among components R, G and B.

Claims 46-48 (Canceled).

Claim 49 (Currently Amended): An image processing system for processing a plurality of ~~component~~ color ~~image~~ signals extracted from image signals, comprising:

a quantizing device for quantizing one of said plurality of ~~component~~ color ~~image~~ signals depending on other ~~component~~ color ~~image~~ signals which are not presently quantized.

Claim 50 (Original): An image processing system for processing a plurality of component color image signals extracted from image signals, comprising:

a quantizing device for quantizing one of said plurality of component color image signals depending on a position of said one of said plurality of component color image signal on a plane identified by a subsection of said plane; said plane being specified by said plurality of component color image signals, as parameters, and divided into a plurality of said subsections with respect to a locus of maximal points of a color difference per unit error caused by a quantization error of said component color image signal to be presently quantized.

Claim 51 (Original): The image processing system according to claim 50,  
wherein said quantizing device linearly quantizes said component color image signal in at least one of said plurality of subsections.

Claim 52 (Currently Amended): An image processing system for processing first and second ~~component~~ color ~~image~~ signals extracted from image signals, comprising:

a quantizing device for quantizing said first ~~component~~ color ~~image~~ signal and a distance of a position from a locus of points of equal values of said first and second ~~component~~ color ~~image~~ signals, said position corresponding to said first and second ~~component~~ color ~~image~~ signals on a plane specified by said first and second ~~component~~ color ~~image~~ signals.

Claim 53 (Currently Amended): The image processing system according to claim 52,  
wherein said quantizing device quantizes at least one of a difference between first and second ~~component~~ color ~~image~~ signals, and either one of said first and second ~~component~~ color ~~image~~ signals.